

Abstract

The invention relates to a process for producing alkali metal chlorate in an electrolytic cell that is divided by a cation selective separator into an anode compartment in which an anode is arranged and a cathode compartment in which a gas diffusion electrode is arranged. The process comprises introducing an electrolyte solution containing alkali metal chloride into the anode compartment and an oxygen-containing gas into the cathode compartment.

The invention also relates to an electrolytic cell for the production of alkali metal chlorate comprising a cation selective separator dividing the cell into an anode compartment in which an anode is arranged and a cathode compartment in which a gas diffusion electrode is arranged. An inlet for electrolyte solution and an outlet for electrolysed solution are provided in the anode compartment and an inlet for introducing oxygen-containing gas is provided in the gas chamber. The invention also relates to a plant comprising the electrolytic cell and the use thereof for the production of alkali metal chlorate and/or chlorine dioxide.